

Some Inquiries and Suggestions concerning Salt for Domestick Uses; and concerning Sheep, to preserve them, and to Improve the Race of Sheep for hardiness, and for the finest Drapery. In a Letter from Doctor John Beal to the Publisher.

1. **SALT** gives the savour and gust to all our Diet; and would be the best and surest Prevention against the Rot of Sheep, if it could be had at easie Rates upon the Downs; for which *England* is generally most concern'd: For, Sheep do support our great Staple-trade, as is implied in the Proverb, *That London-bridge bath Wool for the Foundation, and that our Senators in Parliament do sit on Wool-sacks.* Therefore I here annex and intermingle the Consideration of Salt and Sheep, as most necessary commodities, and not out of the Road of your Useful Philosophy; nor by you omitted in your *Ph. Transactions*. Against the Rot in Sheep *Spanish Salt* is recommended *Numb. 100*: and the means to get Salt is describ'd or suggested *Numb. 51, 53, 54, 66, 102.*

2. From the last of which I will begin to sollicit these further Inquiries: At what places about *Lemington* in *Hampshire* Salt is made? What Quantity is made there? Whether any Salt is made in the *Isle of Wight*, or in the Isles of *Jersey* or *Guernsey*, or any Isles or Coasts belonging to *England*, *Scotland*, or *Ireland*? And what is the peculiar accommodation in *Lemington*, which occurs not on other Coasts? What kind of Salt, white or bay, &c? And, if it might be obtain'd from a trusty friend, to know, what is the gain by each Copper at *Lemington*; the Proportion of the Copper; how many workmen for one or more Coppers; what their Wages, and what other Charges? To the purpose, that where the Wages or other Charges are less, and the Accommodation not wanting, the supply for the Neighbourhood, or as the Seas and Rivers may convey the Salt, may be encouraged. Note, that the Brine at *Nantwich*, contains a Third, or Fourth, or when least, a Sixth Part of Salt.

3. Mr. *Winthrop* by Letter told you, that he had the Way of making good Salt in *New-England* in great abundance and at easie rates. They complain, that great wages are requir'd there; which

which does much retard their Building of Ships and their Iron-works; which would otherwise do them great Service, and do a necessary Kindness to this Kingdom at present, if applied to save our Timber, which begins to be scarce. And Salt is requisite for their great Advantages by *Fishery*, if they have learnt to *cure their Cod and Sturgeon*, of which they have abundance on their Coasts and Isles; and they have the nearest approach to secure the *English* Interest on *Newfoundland*, and for the Fishery on the *Bank*. Under one you may inquire, what Accommodations they have, or what Helps for Salt about *New-York*, or other Places in that Continent, or in any Isles of the *English* Colonies. If a sufficient Sunshine and Industry be not wanting in *Ireland*, I cannot guess what should hinder them to have abundance of Salt for themselves, and their Fishery, and for others, since they cannot want Workmen, and their Wages (as I am inform'd) not great, if compar'd with the usual Demands in *South-England*.

4. In *Varro's* Days it was the Reproach of our *Transalpines* (who dwelt much farther towards the *South* than we do) that on the *Rhine* there were then neither Vines, nor Olives, nor Apples, nor Sea-Salt, nor Fossil-Salt, but were driven to the poor Shift of using Burnt-wood for their Salt: *Ubi nec Vitis, nec Olea, nec Poma nascerentur; ubi Salem nec fossilem nec maritimum haberent, sed ex quibusdam lignis combustis, carbonibus salsis pro eo uterentur. Varro de re Rust. l. 1. c. 7.* The World is, as to those Things, much amended (since those Days) on this side the *Alpes*: And the *English* may yet be minded to proceed, as far as they can, to remove the Reproach; at least for Fruit, Wine, and Salt. *Cato* c. 88. teaches diligently, how to make vulgar Salt (*popularem Salem*) purely white. *Columella* l. 12. c. 53. shews, How to order our Bacon and our Salt (*cocto Sale, nec nimium minuto, sed suspensa mola infracto, diligenter salito,*) for our delicate Gammons, &c. and there instructs, How to boil Salt, and how to season the several Parts of Bacon. And l. 6. c. 1. for Application to sore Eyes (a curious Point) he prefers *Salem-Montanum, Hispanum, vel Ammoniacum, vel etiam Cappadocum, minutè tritum, & immistum melli.* All our good Housewives do find a great Difference between our common Bay-Salt, and the several other Salts, which are in ordinary Use

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amongst us. We find some white Salt very faint ; and the Price imports a Difference between *Spanish, French, and Portugal Salt.*

5. The Illustrious *Palladius*, who wrote about the Year 350, and had his ample Manors or Territories in *Italy, Naples and Sardinia*, and thereby had great Experience in *Sheep*, seems to give *sure Rules, How to preserve the Flocks sound*; *Novemb. Tit. 13. Sect. 2.* Among his Advise's he saith, *Salis tamen crebra conspersio, vel pascuis mista, vel canalibus frequenter oblata, debet pecoris levare fastidium.* All these Three, *Palladius, Varro, and Columella*, do give infallible Instructions for the Preservation of our Flocks ; but the Rules cannot be observed by those that have the greatest Flocks : *To change Pastures often, to be supplied in rainy Seasons with dry Fodder, to lick salted Troughs, to have some turns in Salt-Marshes* : The Words of *Palladius l. cit.* are, *Pascua ovillo generi utilia sunt, quæ vel in novalibus, vel in pratis siccioribus excitantur, palustria verò noxia sunt.* And *Gabr. Prat.* from his own, and his Ancestors Experience of 80 Years, bids us take heed of the pregnant Verdure, when much Rain falls in the vernal Months of *April, and May* : And all Sheep-masters are afraid of rainy Autumns. But whence shall the Relief be had ? The Charge will be heavy, if the same Fodder be provided for every Year, and the destroying Years do surprize us. I hear, that about *Salisbury* some do plough up a few Acres, and sow a Kind of Pulse, which they there call *Tilth*. And now we have in *England* so many Kinds of *French Seeds, and French Grass*, that one Kind or other is like to prosper in most Places ; and Fodder well ordered in Stacks will hold out for many Years, perhaps for Sheep the older the better. And hereabout they hold such friendly Correspondence, that in Autumn I see the Shepherds drive the Flocks out of *Somersetshire* into *Dorsetshire*, and those of *Dorsetshire* into *Somersetshire*, for the Benefit on both sides by change of Soil. Note, That crude *Antimony* cures Sheep and other Cattle, and fattens them also. I omit many Particulars commonly known and observ'd by careful Shepherds, as in Showers, and soon after a shower to drive the flocks gently, that they may beat off the Dew with their Feet, before they be suffer'd to feed on the wet Grass, especially in cold Mornings, when dewy

dewy Cobwebs lie upon the Pastures ; and to let the Sheep blood under the Eye, as soon as they can discern them Rank of Blood. I must refer to Mr. *John Smith's Englands Improvement*, l. 5. p. 170, 171. hoping that he will bestow a few Sheets more to direct punctually the best Way of ordering Sheep, and the most effectual Remedies against the several Kinds of Rots, and their other Diseases, as a Matter of no small Concernment to *England*, and in which he seems to have much Experience.

6. To return for more Salt, and to know the Shifts that are made, and lately were made for it in *England*. At *Wirewater* in *Lancashire* Salt is gathered out of Heaps of Sand along the Sea-side in many Places : Upon which Sand (saith *Speed*) the People pour Water until it gets a saltish Humour, which they afterwards boil with Turfs, till it become white Salt. *Cambden in Britann.* fol. p. 753. describes it thus, *In ora hac maritima multæ in locis sabuli cumulos videas, quibus aquam subinde infundunt, donec salsuginem contraxerit, quam postea subditis globis in candidum salen excoquant.* And *Speed* saith, There are certain Stones lying in the River *Were* at *Butterbec* near *Durham*, from whose Sides, at the ebb and low Water in Summer, issues a certain Salt reddish Water, which with the Sun waxeth white, and growing into a thick Substance becomes a necessary Salt for the By-dwellers. *Cambden* p. 744. describes it thus, *Inde Vedra decurrit, crebrò eminentibus saxis interpolatus, quibus si aqua infundatur, parumque misceatur, salsam imbuat qualitatem.* Sir, you took Notice of two or three saline Springs in this Neighbourhood of *Somersetshire* : One examin'd by Dr. *Higmore*, in your *Num.* 56. p. 1130 ; another *Num.* 57. p. 1162. And doubtless there are many more such in *England*, if well observ'd : And tho' the Proportion of Salt be small, yet they may serve for some domestick Uses. The Water in Summer-time, when the Brine is strongest, being cast in any Place where it may be soon dried by the Sun, and where we would have Pigeons resort, does please them well. So will any refuse Brine being boil'd up to a Consistence. But I know not whether such Brine taken from powder'd Flesh will be kind for Sheep. *Possibly such saline Springs may indicate fossil Salt for future Industry.* And *N.* 56. p. 1135. you recite from worthy Mr. *Evelyn* a good Hint to encourage some Attempts for the *Multiplying of Salt*, in *Sylva secund.* Edit.

c. 3. p. 26. *Seft. 17.* Sir *Hugh Plat* hath said and collected enough of the Vertues and Uses of Salt (and how it may be obtain'd) for the Fertilizing of Land, in his *Jewel-house*, c. 104.

7. Now to improve the *Race* of our *Sheep* for Hardiness, or for Largeness of the Size, and Abundance of Wool; we hear, that many wealthy Sheep-masters on the Downs do offer very high Rates for the largest Sheep, Rams especially, that they can procure; and sometimes they buy from foregin Parts very large and lusty Rams, and find the Benefit by the Largeness of the descending Race. And since, in several Parts of *England*, they seriously set on for the finest *Drapery*, 'tis to be wish'd that our Merchants would bring us from those Parts of *Spain*, *Italy*, and *Greece*, (which boast of the finest Wool) both Rams and Ewes that bear the finest Wool, that we may try them at *Lembsterfore* in *Herefordshire*, where they are skill'd, and generally practised in ordering such delicate and tender Sheep, and to try them in other Parts, where they pretend to the finest Wool in *England*. Our Merchants say much, and require good pay for the *Spanish* Wool; some for the Wool of *Segovia*. Of old the Sheep of *Tarentum* had in *Italy* the highest Esteem. These *Tarentin* Sheep were brought into *Italy* from *Greece*, and were so tender, and did require such curious and costly Attendance in *Varro's* Days, being all cover'd with Leather Pelts (*pellibus integuntur*) to guard them from Heat or Cold, and to preserve their Purple Fleeces from all Pollution; *Varro* l. 2. c. 2. and after, in *Columella's* Time, required such exact Skill to preserve them, *Colum.* l. 7. c. 2. that I know not how to recommend them for our *English* Climate, and our ordinary Shepherds. *Pallad* saith, l. cit. *Græcas oves, sicut Asiaticas, vel Tarentinas, moris est potius stabulo nutrire quam campo.* I must refer to better Advice for such a Race as is likely to live amongst us, and then if Gentlemen wou'd make the Trial to amend the Race of Sheep (as they have often attempted to amend our Race of Horses by the best of *Barbary*, and as with more Hope the Gentry in *Ireland* may assay to mend their mettalsome Hobbies with *Spanish* Genets, or Bards from *Tangier*,) under one, by the same or like diligence, and by the same adventure, they may chance to oblige their Country both ways, both with Sheep bearing finer Wool, and with better Horses than the *Irish* Hobbies; I dare not say, than the right *British*.
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For I was told by a great master of horſes, who had many years experience of Stallion barbs, the beſt he could buy, that the baſtard barbs, deſcending from the beſt *Engliſh* mares he could obtain, were conſtantly better ſhaped, and better for the ſaddle and other ſtronger ſervice, than their Syres. But I turn'd here aſide to name *Ireland*, becauſe the rot of ſheep is not ſo ordinary in *Ireland* as in *England*, and they are nearer *Spain* and *Tangier* than we are: And they are highly to be commended for their late induſtry, both in the linnen and Woollen manufactures; which may nobly provoke our emulation. And whilſt *England* and *Ireland* ſtrive to excel each other in good things, we draw cloſer to a perfect union, and to give ſtrength and aſſiſtance to each other mutually. Sir, you having been long accuſtom'd to bear the burthen of uſeful Inquiries, and to promote the common good, you'll pardon this freedom in, &c.

An Account of ſome Books.

- I. *About the Excellency and Grounds of the MECHANICAL HYPOTHESIS, ſome Conſiderations occaſionally propos'd to a Friend by R. B. E. Fellow of the R. Society.* London. 1674. in. 4°.

THIS Diſcourſe is annexed to another, entituled, *The Excellency of THEOLOGY, compar'd with NATURAL PHILOSOPHY*; which though it be not of a direct tendency to the deſign of theſe Tracts, yet doth it occaſionally mention divers things, fit to be taken notice of by a Student of Natural Philoſophy; ſuch as are the uſeful Hints and Directions to guide him in the making Experiments ſkilfully and warily (p. 118, 119;) to encourage him to the Improvement of Natural Philoſophy, now that the *Mechanical Hypotheſis* is ſufficiently ſettled, and the right Methods of Inquiring are found out (p. 171.) to inſtruct him how injurious *Systematical* Writers are to the true ſearch of Nature (p. 193.) and what care is to be had of eſtabliſhing *Philoſophical Hypotheſes* (p. 208.) as alſo how much remains yet to be diſcover'd of Nature (p. 174, 176, 178.) and how Philoſophy hath recoiled by the *Ariſtotelians* laying aſide Mathematicks, and diſputing of Generals (p. 204.) and by whom the Experimental and Mathematical Way of Philoſophizing hath been reſtored and brought